<u>**CLAIMS**</u>

WHAT IS CLAIMED IS:

1. A data capture system for latching an input data signal, comprising:

5   a first data latch, coupled to receive an input data signal and a first data strobe signal, for generating a first latched data signal;

a second data latch, coupled to receive the input data signal and a second data strobe signal, for generating a second latched data signal;

a third data latch, coupled to receive the input data signal and a third 10   data strobe signal, for generating a third latched data signal;

a first data comparator, coupled to receive the first latched data signal and the second latched data signal, for generating a delay more signal in response to the first latched data signal and the second latched data signal being not equal;

15   a second data comparator, coupled to receive the first latched data signal and the third latched data signal, for generating a delay less signal in response to the first latched data signal and the third latched data signal being not equal;

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a delay controller, coupled to receive the delay more signal or the delay less signal, for generating an adjusting signal to adjust the delays of each data strobe signal.

2. The data capture system in claim 1, further comprising:

5 a first delay element, coupled to receive a source data strobe signal and adjusting signal from the delay controller, for generating the second data strobe signal;

a second delay element, coupled to receive the first data strobe signal and the adjusting signal from the delay controller, for generating the first

10 data strobe signal; and

a third delay element, coupled to receive the second data strobe signal and the adjusting signal from the delay controller, for generating the third data strobe signal.

3. The data capture system in claim 1, wherein the delay

15 controller further comprises:

a threshold register for storing a threshold value;

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a counter, coupled to receive the delay more signal or the delay less signal, for incrementing a counter value upon receiving the delay more signal or the delay less signal; and

a comparator, coupled to receive the threshold value and the counter

5   value, for comparing the threshold value and the counter value and generating a qualified delay more or delay less signal in response to the counter value exceeding the threshold value.

3/4.   The data capture system in claim 3, wherein the delay controller further comprises an OR latch for generating a software interrupt

10   signal in response to receiving the qualified delay more signal or the qualified delay less signal.

5.   The data capture system in claim 2, wherein the delay controller further comprises an OR latch for generating a software interrupt signal in response to receiving the delay more signal or the delay less signal.

15   6.   In a data capture system, a method for ensuring capture of an input data signal, comprising:

receiving an input data signal at a first latch, a second latch, and a third latch;

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receiving a first data strobe signal at the first latch, a second data strobe signal at the second latch, and a third data strobe signal at the third latch;

latching the input data signal at each latch in response to receiving

5   the respective data strobe signal at that latch;

comparing the latched data from the first latch and the second latch to determine if the latched data is equal;

adjusting each data strobe signal to delay more in response to the latched data from the first latch and the second latch being not equal;

10   comparing the latched data from the second latch and the third latch to determine if the latched data is equal; and

adjusting each data strobe signal to delay less in response to the latched data from the second latch and the third latch being not equal.

7.   The method for ensuring capture of an input data signal in

15   claim 6, wherein the adjusting each data strobe signal steps further comprise:

receiving the delay more signal or the delay less signal;

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incrementing a counter value in response to receiving the delay more signal or the delay less signal;

comparing the counter value with a threshold value;

generating a qualified delay more signal in response to the counter

5 value incremented by the delay more signal exceeding the threshold value; and

generating a qualified delay less signal in response to the counter value incremented by the delay less signal exceeding the threshold value.

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